## The New York Times

## The Opinion Pages How to Study the Numinous

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In an op-ed in the Sunday edition of this newspaper, Barbara Ehrenreich, card-carrying liberal rationalist, writes about her own mystical experiences (the subject of her new book), and argues that the numinous deserves more cutting-edge scientific study:

If mystical experiences represent some sort of an encounter, as they have commonly been described, is it possible to find out what they are encounters with? Science could continue to dismiss mystical experiences as mental phenomena, internal to ourselves, but the merest chance that they may represent some sort of contact or encounter justifies investigation. We need more data and more subjective accounts. But we also need a neuroscience bold enough to go beyond the observation that we are "wired" for transcendent experience; the real challenge is to figure out what happens when those wires connect. Is science ready to take on the search for the source of our most uncanny experiences?

Fortunately, science itself has been changing. It was simply overwhelmed by the empirical evidence, starting with quantum mechanics and the realization that even the most austere vacuum is a happening place, bursting with possibility and giving birth to bits of something, even if they're only fleeting particles of matter and antimatter. Without invoking anything supernatural, we may be ready to acknowledge that we are not, after all, alone in the universe. There is no evidence for a God or gods, least of all caring ones, but our mystical experiences give us tantalizing glimpses of other forms of consciousness, which may be beings of some kind, ordinarily invisible to us and our instruments. Or it could be that the universe is itself pulsing with a kind of life, and capable of

bursting into something that looks to us momentarily like the flame.

I appreciate the spirit (if you will) of this argument, but I am very doubtful as to its application. The trouble is that in its current state, cognitive science has a great deal of difficulty explaining "what happens" when "those wires connect" for non-numinous experience, which is why mysterian views of consciousness remain so potent even among thinkers whose fundamental commitments are atheistic and materialistic. (I'm going to link to the internet's sharpest far-left scold for a good recent polemic on this front.) That is to say, even in contexts where it's very easy to identify the physical correlative to a given mental state, and to get the kind of basic repeatability that the scientific method requires – show someone an apple, ask them to describe it; tell them to bite into it, ask them to describe the taste; etc. - there is no kind of scientific or philosophical agreement on what is actually happening to produce the conscious experience of the color "red," the conscious experience of the crisp McIntosh taste, etc. So if we can't say how this "normal" conscious experience works, even when we can easily identify the physical stimulii that produce it, it seems exponentially harder to scientifically investigate the invisible, maybe-they-exist and maybe-they-don't stimulii – be they divine, alien, or panpsychic – that Ehrenreich hypothesizes might produce more exotic forms of conscious experience.

Especially since, by definition, the truly exotic is not likely to repeat itself for the convenience of a laboratory technician. There are kinds of numinous experience that can be technically investigated, in the limited sense that Ehrenreich (rightly) suggests is insufficient to understanding them – you can put a praying or meditating person in a brain scanner and see which areas of their brain seem to be involved in the journey into the mystic, you can look for ways to attempt to recreate those brain states, you can link similar experiences to medical conditions and hallucinogens, etc. But a wide range of numinous experiences come upon people unbidden (which is why atheists as well as believers have them), seem to lack any consistent connection to internal or external stimulii, and take place either seemingly randomly or in extreme states and situations (death, birth, trauma, crisis, ecstasy) that are not, to put it mildly, easily predictable in advance. So the problem for scientific investigators is twofold – they're being asked to explain the extraordinary without a coherent theory of the ordinary, and to investigate the seemingly unpredictable when the predictable still gives them headaches. (And then, of course, there's the final twist that if the numinous represents what many religious traditions have insisted that it does, it's manifestations are not just seemingly but absolutely beyond our ability to rigorously predict.)

Which is not to say that science is helpless in the face of all supernatural claims and possibilities. Its methods are very good at debunking the claims of people — professional psychics and alleged practitioners of telekinesis, most notably — who insist that *they* have rendered the numinous predictable and found a way to consistently harness invisible powers to visible ends. But this debunking is possible because of what's being claimed by the Uri Gellers of the world — a pretty-much-consistent power, with mostly-consistent results, that's under direct human control. When you're dealing with experiences that nobody really claims are predictable, and that at least *seem* — as Ehrenreich suggests — to represent a kind of breaking-in from outside rather than an expression of human gifts or willpower, the same debunking logic just doesn't apply.

So by all means, neuroscientists should seek to understand mystical experiences, as they should seek to understand every other sort of experience ... but absent a revolutionary breakthrough in the science of consciousness, for the foreseeable future the best way to actually penetrate any distance into mystical phenomena will probably continue to be the twofold path of direct investigation and secondhand encounter. By direct investigation, of course, I mean personal prayer and meditation, which is *the* major path to knowledge if the major religious traditions are right about what's going on here, and probably a useful path to some sort of knowledge even if they're not. It's remarkable how many recent "explorations" of religion (cough, Daniel Dennett, cough) don't seem to grasp this point, which David Bentley Hart's recent book distills as follows:

... even if one's concept of rationality or of what constitutes a science is too constricted to recognize the contemplative path for what it is, the essential point remains: no matter what one's private beliefs may be, any attempt to confirm or disprove the reality of God can be meaningfully undertaken only in a way appropriate to what God is purported to be ... In my experience, those who make the most theatrical display of demanding "proof" of God are also those least willing to undertake the specific kinds of mental and spiritual discipline that all the great religious traditions say are required to find God. If one is left unsatisfied by the logical arguments for belief in God, and instead insists upon some "experimental" or "empirical" demonstration, then one ought to be willing to attempt the sort of investigations necessary to achieve any sort of real certainty regarding a reality that is nothing less than the infinite coincidence of absolute being, consciousness, and bliss. In short, one must pray: not fitfully, not simply in the manner of a suppliant seeking aid or of a penitent seeking absolution but also according to the disciplines of infused contemplation, with real constancy of will and a patient openness to grace, suffering states of both dereliction and ecstasy with the equanimity of faith, hoping but not presuming, so as to find whether the spiritual journey, when followed in earnest, can disclose its own truthfulness ...

For those (those of us, I should say) who feel under-equipped for the journey of the true mystics, meanwhile, there is always the second, more indirect, path, which involves relying (as **Rice's Jeffrey Kripal argues** in a Chronicle of Higher Education essay this month) on that old war-horse, the humanities, to do what it does best: Not to settle questions permanently and perfectly empirically, but to expose the individual consciousness to a widest possible range of conscious experience, to explore the ways of being in all their strange varieties, and to analyze and argue over the patterns that emerge.

In the case of the numinous, this means reading actual mystics and religious texts, reading novelists and poets and essayists who take up these experiences and themes, exploring theology and philosophy, delving into the sociology and anthropology and psychology of religious experience, and so on. And it feels like an unfortunate symptom of our era's scientism that when a writer like Ehrenreich, who has just made her own contribution to this literature and who's clearly comfortable on both sides of the "two cultures" divide, wants to urge people to pay more intellectually-serious attention to the numinous, she (almost automatically, it seems) takes off her her humanist/essayist hat and puts her hopes in a "bold" new neuroscience — instead of calling for a renewed highbrow interest, in, say, comparative religion, or a 21st century answer to "The Varieties of Religious Experience" or "The Golden Bough."

If our understanding of the mystical is impoverished today, perhaps it's because we've put *too much* faith in brain scans, and allowed other forms of knowledge and investigation to ebb. Perhaps what we need is a revival of philosophically-informed psychology and anthropology, rather than a more ambitious spiritual phrenology. Perhaps, instead of a better fMRI machine, we're waiting for a new (and doubtless very different) William James or James Frazer or Carl Jung.

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